

AMENDMENTS TO THE CLAIMS

Please amend the claims as set forth below. A listing of all pending claims is presented below.

1. (Currently Amended) An authentication system ~~made up by a portable terminal and an authentication device provided independently of said portable terminal for communication with said portable terminal~~, said authentication system comprising:

a portable terminal, including:

first identification information storage means having ~~the~~ a first identification information pre-stored therein for discriminating said portable terminal,

operating means for inputting ~~the~~ a second identification information associated with said first identification information,

encryption means for encrypting the second identification information input by said operating means based on ~~the preset~~ an encryption key ~~generating~~ information, and

first communication means for communication with said authentication device; ;

~~said an authentication device, provided independently of said portable terminal for communication with said portable terminal, the authentication device~~ including:

second identification information storage means for storage of the first identification information and the second identification information therein,

encryption key ~~generating~~ information generating means for generating said encryption key ~~generating~~ information, wherein said encryption key information is a random number made up by a preset number,

second communication means for communication with said portable terminal, and
comparator authentication means for comparing and authenticating the second
identification information encrypted by said encryption means based on said
encryption key ~~generating~~ information; ;

wherein said portable terminal encrypts the second identification information input from
said operating means, based on said encryption key ~~generating~~ information received from said
authentication device, the so-encrypted second identification information is transmitted through
said first communication means to said authentication device; ; and

wherein, in said authentication device, ~~and~~ the encrypted second identification
information received through said second communication means and the second identification
information stored by said second identification information storage means are compared to each
other based on said encryption key ~~generating~~ information by way of performing the
authentication.

2. (Currently Amended) The authentication system according to claim 1 wherein said
authentication device includes:

decoding means for decoding the second identification information encrypted by said
encrypting means based on said encryption key ~~generating~~ information,

said authentication device decoding the received encrypted second identification
information based on said encryption key ~~generating~~ information, said authentication device
comparing the decoded second identification information to the second identification information

stored in said second identification information storage means, by way of performing the authentication.

3. (Currently Amended) The authentication system according to claim 2, wherein ~~said encryption key generating information is a random number made up by a preset number of letters, and wherein~~ said second identification information is a password of a service user made up of a preset letter string or a preset string of numerical figures,

4. (Currently Amended) The authentication system according to claim 3 for authenticating a the service user to whom preset services are offered from a service provider in a credit sale system, an inter-account instant payment system and in E-commerce carried out over a preset network, wherein

said portable terminal is a card-shaped portable terminal issued by said service provider to said service user,

said authentication device being contained in a host computer in which said service provider authenticates ~~the use information~~ usage by said service user, and

said service user being authenticated by said authentication device authenticating said portable terminal and that said service user is a true owner of the portable terminal.

5. (Currently Amended) The authentication system according to claim 4, wherein said first and second communication means are ~~wired or~~ wireless communication means.

6. (Currently Amended) The authentication system according to claim 4, wherein said portable terminal includes a transient storage means in which the second identification information is stored transiently.

7. (Previously Presented) The authentication system according to claim 4, wherein said transient storage means stores the second identification information input by said operating means until authentication of said portable terminal by said authentication device.

8. (Currently Amended) The authentication system according to claim 4 6, wherein said second identification information stored in said transient storage means is erased every preset time interval.

9. (Previously Presented) The authentication system according to claim 4, wherein said operating means in said portable terminal includes means for erasing the second identification information stored in said transient storage means.

10. (Previously Presented) The authentication system according to claim 4, wherein said operating means in said portable terminal includes a plurality of input units for letters or numerical figures for inputting said second identification information, and wherein the arraying positions of said letter input units are variable.

11. (Previously Presented) The authentication system according to claim 10, wherein the arraying positions of said letter inputting units are varied prior to the inputting of said second identification information.

12. (Previously Presented) The authentication system according to claim 10, wherein said operating means in said portable terminal includes a display unit for displaying letters and a selection unit for selecting the letters displayed on said display unit, and wherein the second identification information input by said operating means is made up by a string of letters selected by said selection unit from among plural letters sequentially displayed on said display unit.

13. (Currently Amended) An authentication method in which a portable terminal is authenticated by an authentication device provided independently of said portable terminal, said method comprising

an operating step of inputting ~~the~~ a second identification information associated with a first identification information ~~for discriminating~~ that discriminates said portable terminal, and that is pre-stored in said a first identification information storage means of said portable terminal,

an encryption key ~~generating~~ information generating step of generating ~~the~~ an encryption key ~~generating~~ information,

an encrypting step of encrypting the second identification information input at said operating step, based on the encryption key ~~generating~~ information generated in said encryption key ~~generating~~ information generating step, and

a comparison authentication step of comparing the second identification information encrypted in said encrypting step to ~~said encryption key generating information by way of performing the authentication~~ the second identification information as stored in a second identification information storage means to perform the authentication.

14. (Currently Amended) The authentication method according to claim 13 further comprising

a decoding step of decoding the second identification information, encrypted in said encrypting step, based on said encryption key ~~generating~~ information,

the encrypted second identification information being decoded in said decoding step based on said encryption key ~~generating~~ information, and the decoded second identification information being compared to the second identification information stored in said second identification information storage means by way of performing the authentication.

15. (Currently Amended) The authentication method according to claim 14, wherein the encryption key ~~generating~~ information is a random number ~~comprised of~~ made up by a preset number ~~of letters~~.

16. (Currently Amended) The authentication method according to claim 15 for authenticating a service user to whom preset services are offered from a service provider in a credit sale system, an inter-account instant payment system and in E-commerce carried out over a preset network, wherein

said portable terminal is a card-shaped portable terminal issued by said service provider to said service user,

said authentication device being an authentication device contained in a host computer in which said service provider authenticates ~~the use information~~ usage by said service user, and

said service user being authenticated by said authentication device authenticating said portable terminal and that said service user is a true owner of the portable terminal.

17. (Currently Amended) The authentication method according to claim 16, wherein said portable terminal and the authentication device are interconnected by ~~wired or~~ wireless communication means.

18. (Previously Presented) The authentication method according to claim 16, wherein said portable terminal includes a transient storage step of transiently storing the second identification information.

19. (Currently Amended) The authentication method according to claim ~~16~~ 18, wherein said transient storage step stores the second identification information input in said operating step until authentication of said portable terminal by said authentication device.

20. (Currently Amended) The authentication method according to claim ~~16~~ 18, wherein said second identification information stored in said transient storage step is erased every preset time interval.

21. (Currently Amended) The authentication method according to claim ~~16~~ 18, wherein said operating step includes a step of erasing the second identification information stored in said transient storage step.

22. (Previously Presented) The authentication method according to claim 16, wherein said operating step includes a letter inputting step of inputting said second identification information, and wherein the second identification information is input in said letter inputting step via a plurality of letter inputting units the arraying positions of which are variable.

23. (Previously Presented) The authentication method according to claim 22, wherein the arraying positions of said plural letters in said letter inputting step are varied prior to inputting of said second identification information.

24. (Previously Presented) The authentication method according to claim 22, wherein said operating step includes a display step of displaying letters and a selection step of selecting the letters displayed in said display step, and wherein the second identification information input by said operating step is made up by a string of letters selected in said selection step from among plural letters sequentially displayed in said display step.

25. (Withdrawn) An encryption key inputting device in which a string of a preset number of letters comprised of a combination of letters included in a preset group of letters is a letter string for authentication, said device comprising

display means for irregularly displaying the letters included in said preset group of letters, and selection means for selecting said letter string for authentication from among the letters irregularly displayed on said display means.

26. (Withdrawn) The encryption key inputting device according to claim 25, wherein said preset group of letters is ten numerical figures from 0 to 9.

27. (Withdrawn) The encryption key inputting device according to claim 25, wherein said display means irregularly displays said numerical figures in optional positions in said display means.

28. (Withdrawn) The encryption key inputting device according to claim 25, wherein said display means displays said numerical figures one-by-one in an irregular sequence.

29. (Withdrawn) The encryption key inputting device according to claim 25, wherein said display means displays the pre-entered numerical figures from 0 to 9 or the vicinity thereof by emitting light thereat to indicate respective numerical figures.

30. (Withdrawn) An encryption key inputting method in which a string of a preset number of letters comprised of a combination of letters included in a preset group of letters is a letter string for authentication, said method comprising

a displaying step of irregularly displaying the letters included in said preset group of letters, and

a selection step of selecting said letter string for authentication from among the letters irregularly displayed in said display step.

31. (Withdrawn) The encryption key inputting method according to claim 30, wherein said preset group of letters is ten numerical figures from 0 to 9.

32. (Withdrawn) The encryption key inputting method according to claim 30, wherein said display step irregularly displays said numerical figures in optional positions in said display step.

33. (Withdrawn) The encryption key inputting method according to claim 30, wherein said display step displays said numerical figures one-by-one in an irregular sequence.

34. (Withdrawn) The encryption key inputting method according to claim 30, wherein said display step displays the pre-entered numerical figures from 0 to 9 or the vicinity thereof by emitting light thereat to indicate respective numerical figures.

35. (Currently Amended) A portable terminal authenticated by an authentication device, comprising,

first identification information storage means ~~having the~~ for storing a first identification information for discriminating said portable terminal ~~pre-stored therein~~,

operating means for inputting ~~the~~ a second identification information associated with said first identification information,

communication means for communication with said authentication device, and

encrypting means for encrypting the second identification information input by said operating means based on ~~preset~~ an encryption key ~~generating~~ information ~~sent over said communication means~~ received from said authentication device.

36. (Currently Amended) The portable terminal according to claim 35, wherein said encryption key ~~generating~~ information is a preset number of random numbers.

37. (Currently Amended) The portable terminal according to claim 35, wherein the portable terminal is issued to ~~said~~ a service user by a service provider to offer preset services for said service user in a credit sale system, an inter-account instant payment system and E-commerce carried out over a preset network and is in the form of a card.

38. (Currently Amended) The portable terminal according to claim 37, wherein said communication means are ~~wired or~~ wireless communication means.

39. (Previously Presented) The portable terminal according to claim 37, wherein said portable terminal includes transient storage means in which the second identification information is stored transiently.

40. (Previously Presented) The portable terminal according to claim 39, wherein said transient storage means stores the second identification information input by said operating means until authentication of said portable terminal by said authentication device.

41. (Previously Presented) The portable terminal according to claim 39, wherein said second identification information stored in said transient storage means is erased every preset time interval.

42. (Previously Presented) The portable terminal according to claim 39, wherein said operating means in said portable terminal includes means for erasing the second identification information stored in said transient storage means.

43. (Previously Presented) The portable terminal according to claim 37, wherein said operating means includes a plurality of letter inputting means for inputting said second identification information, and wherein the arraying positions of said letter inputting units are variable.

44. (Previously Presented) The portable terminal according to claim 43, wherein the arraying positions of said plural letters in said letter inputting means are varied prior to the inputting of said second identification information.

45. (Previously Presented) The portable terminal according to claim 43, wherein said operating means includes a display unit for displaying letters and a selection unit for selecting the letters displayed in said display unit, and wherein the second identification information input by said operating means is made up by a string of letters selected in said selection unit from among plural letters sequentially displayed on said display unit.

46. (Currently Amended) An authentication system made up by a portable terminal and an authentication device provided independently of said portable terminal for communication with said portable terminal, said authentication system comprising:

said portable terminal, including

first identification information storage means having ~~the~~ a first identification information pre-stored therein for discriminating said portable terminal,

operating means including display means for irregularly displaying letters included in a group of letters and selection means for selecting the letters making up ~~the~~ a second identification information from among the letters irregularly displayed on said display means, said operating means inputting the second identification information associated with said first identification information,

encryption means for encrypting the second identification information input by said operating means based on ~~the preset~~ an encryption key ~~generating~~ information, and

first communication means for communication with said authentication device; ;

said authentication device, including

second identification information storage means having the first identification information and the second identification information stored therein,

encryption key ~~generating~~ information generating means for generating said encryption key ~~generating~~ information,

second communication means for communication with said portable terminal, and

comparator authentication means for comparing the second identification information encrypted by said encryption means to ~~said encryption key generating information by way of authentication,~~ the second identification information stored in the second identification information storage means; wherein

said portable terminal encrypts the second identification information input from said operating means, based on said encryption key ~~generating~~ information received from said authentication device through said first communication means, and the so-encrypted second identification information is transmitted through said first communication means to said authentication device; ; and

wherein, in said authentication device, the encrypted second identification information received through said second communication means and the second identification information stored by said second identification information storage means are compared to each other based on said encryption key ~~generating~~ information by way of performing the authentication.